Statement of Basis of the Federal Operating Permit

INEOS USA LLC

Site Name: INEOS Polyethylene La Porte Plant
Physical Location: 1230 Independence Pkwy S
Nearest City: La Porte
County: Harris

Permit Number: O1439
Project Type: Renewal

Standard Industrial Classification (SIC) Code: 2821
SIC Name: Plastics Materials

This Statement of Basis sets forth the legal and factual basis for the draft permit conditions in accordance with 30 TAC §122.201(a)(4). Per 30 TAC §§ 122.241 and 243, the permit holder has submitted an application under § 122.134 for permit renewal. This document may include the following information:

A description of the facility/area process description;
A basis for applying permit shields;
A list of the federal regulatory applicability determinations;
A table listing the determination of applicable requirements;
A list of the New Source Review Requirements;
The rationale for periodic monitoring methods selected;
The rationale for compliance assurance methods selected;
A compliance status; and
A list of available unit attribute forms.

Prepared on: August 7, 2017

Operating Permit
Basis of Determination

Permit Area Process Description
The INEOS facility produces high-density polyethylene (PE) in the form of flake or plastic pellets. There are two types of reaction processes and 12 reaction lines at the INEOS site.

Slurry Loop Dry (SSLD) Process
Eleven of the reaction lines utilize this process. In this reaction process, fresh ethylene is supplied by pipeline and fresh isobutane, butene, and hexene are supplied by railcar. Ethylene and isobutane are fed to the reactor, and freshly activated catalyst and comonomers (butene and hexene) are added. Each reactor line contains a continuous loop reactor where the mixture of components polymerizes into PE flake. A slurry of PE, unreacted feed, and other impurities are continuously withdrawn from the reactors and fed to a flash drum where unreacted compounds are separated. The PE flake slurry, along with any remaining hydrocarbon, exits through the bottom of the flash drum into a steam dryer. Flake from the dryer is then pneumatically conveyed, via a closed loop nitrogen system equipped with a residual hydrocarbon recovery system, to storage silos or feed purge silos. Fabric filters within the closed loop system trap flake particulate.

Slurry Loop Wet (SSLW) Process
One of the reaction lines utilizes this process. Components are supplied to the facility and fed into the reactors in a manner similar to the SSLD system. This system also contains a continuous loop reactor in which the mixture of components polymerizes into PE flake. The SSLW process also utilizes a “wet flash” to deactivate the reaction. A slurry of PE, unreacted feed, and other impurities are continuously withdrawn from the reactors and fed to a flash drum. Steam or condensate is also added to the flash drum. The flash drum separates unreacted compounds, water and PE flake. Recovered water is routed to wastewater treatment and unreacted compounds are routed to recycle towers. PE flake is sent to a stripper where more unreacted hydrocarbons are recovered and more water is separated from the flake. This water is recycled back to the flash drum and hydrocarbons are sent to the recycle tower. The PE flake is sent to a centrifuge which removes more water and routes it back to the stripper. PE flake is then sent to a dryer where any remaining water or hydrocarbons are removed. After drying, the flake is pneumatically conveyed in a manner similar to the SSLD system.
In both systems, the overhead vapors from the flash drums are routed to a reboiler column/recycle tower. Recovered compounds are treated and/or recycled. There are nine PE finishing lines/extrusion units at the facility. PE flake is pneumatically conveyed from dryers to the appropriate destination. Most feed vent emissions are routed to residual hydrocarbon recovery systems and cyclonic bag filters are used to control particulate emissions. Flake is measured and transferred to extrusion units along with appropriate additives for the specific product being produced. The feed is melted and pelletized in an underwater system, and the water/pellet slurry is pumped to a dewatering/spin away dryer and followed by a vibrating screen classifier. The PE pellets are pneumatically conveyed from the classifier to pellet rundown tanks, then blended and sent to storage or loading. Pellets are loaded into railcars, trucks, or boxes. A small amount of PE flake may also be shipped off-site as product.

FOPs at Site
The “application area” consists of the emission units and that portion of the site included in the application and this permit. Multiple FOPs may be issued to a site in accordance with 30 TAC § 122.201(e). When there is only one area for the site, then the application information and permit will include all units at the site. Additional FOPs that exist at the site, if any, are listed below.

Additional FOPs: O3758

Major Source Pollutants
The table below specifies the pollutants for which the site is a major source:

Major Pollutants	VOC, NOx, CO

Reading State of Texas' Federal Operating Permit
The Title V Federal Operating Permit (FOP) lists all state and federal air emission regulations and New Source Review (NSR) authorizations (collectively known as "applicable requirements") that apply at a particular site or permit area (in the event a site has multiple FOPs). **The FOP does not authorize new emissions or new construction activities.** The FOP begins with an introductory page which is common to all Title V permits. This page gives the details of the company, states the authority of the issuing agency, requires the company to operate in accordance with this permit and 30 Texas Administrative Code (TAC) Chapter 122, requires adherence with NSR requirements of 30 TAC Chapter 116, and finally indicates the permit number and the issuance date.

This is followed by the table of contents, which is generally composed of the following elements. Not all permits will have all of the elements.

- General Terms and Conditions
- Special Terms and Conditions
    - Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting
    - Additional Monitoring Requirements
    - New Source Review Authorization Requirements
    - Compliance Requirements
    - Protection of Stratosphere Ozone
    - Permit Location
    - Permit Shield (30 TAC § 122.148)
- Attachments
    - Applicable Requirements Summary
        - Unit Summary
        - Applicable Requirements Summary
    - Additional Monitoring Requirements
    - Permit Shield
    - New Source Review Authorization References
    - Compliance Plan
    - Alternative Requirements
- Appendix A
    - Acronym list

General Terms and Conditions

The General Terms and Conditions are the same and appear in all permits. The first paragraph lists the specific citations for 30 TAC Chapter 122 requirements that apply to all Title V permit holders. The second paragraph describes the requirements for record retention. The third paragraph provides details for voiding the permit, if applicable. The fourth paragraph states that the permit holder shall comply with the requirements of 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit. The fifth paragraph provides details on submission of reports required by the permit.

Special Terms and Conditions

Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting. The TCEQ has designated certain applicable requirements as site-wide requirements. A site-wide requirement is a requirement that applies uniformly to all the units or activities at the site. Units with only site-wide requirements are addressed on Form OP-REQ1 and are not required to be listed separately on a OP-UA Form or Form OP-SUM. Form OP-SUM must list all units addressed in the application and provide identifying information, applicable OP-UA Forms, and preconstruction authorizations. The various OP-UA Forms provide the characteristics of each unit from which applicable requirements are established. Some exceptions exist as a few units may have both site-wide requirements and unit specific requirements.

Other conditions. The other entries under special terms and conditions are in general terms referring to compliance with the more detailed data listed in the attachments.

Attachments

Applicable Requirements Summary. The first attachment, the Applicable Requirements Summary, has two tables, addressing unit specific requirements. The first table, the Unit Summary, includes a list of units with applicable requirements, the unit type, the applicable regulation, and the requirement driver. The intent of the requirement driver is to inform the reader that a given unit may have several different operating scenarios and the differences between those operating scenarios.

The applicable requirements summary table provides the detailed citations of the rules that apply to the various units. For each unit and operating scenario, there is an added modifier called the "index number," detailed citations specifying monitoring and testing requirements, recordkeeping requirements, and reporting requirements. The data for this table are based on data supplied by the applicant on the OP-SUM and various OP-UA forms.

Additional Monitoring Requirement. The next attachment includes additional monitoring the applicant must perform to ensure compliance with the applicable standard. Compliance assurance monitoring (CAM) is often required to provide a reasonable assurance of compliance with applicable emission limitations/standards for large emission units that use control devices to achieve compliance with applicant requirements. When necessary, periodic monitoring (PM) requirements are specified for certain parameters (i.e. feed rates, flow rates, temperature, fuel type and consumption, etc.) to determine if a term and condition or emission unit is operating within specified limits to control emissions. These additional monitoring approaches may be required for two reasons. First, the applicable rules do not adequately specify monitoring requirements (exception- Maximum Achievable Control Technology Standards (MACTs) generally have sufficient monitoring), and second, monitoring may be required to fill gaps in the monitoring requirements of certain applicable requirements. In situations where the NSR permit is the applicable requirement requiring extra monitoring for a specific emission unit, the preferred solution is to have the monitoring requirements in the NSR permit updated so that all NSR requirements are consolidated in the NSR permit.

Permit Shield. A permit may or may not have a permit shield, depending on whether an applicant has applied for, and justified the granting of, a permit shield. A permit shield is a special condition included in the permit document stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirement(s) or specified applicable state-only requirement(s).

New Source Review Authorization References. All activities which are related to emissions in the state of Texas must have a NSR authorization prior to beginning construction. This section lists all units in the permit and the NSR authorization that allowed the unit to be constructed or modified. Units that do not have unit specific applicable requirements other than the NSR authorization do not need to be listed in this attachment. While NSR permits are not physically a part of the Title V permit, they are legally incorporated into the Title V permit by reference. Those NSR permits whose emissions exceed certain PSD/NA thresholds must also undergo a Federal review of federally regulated pollutants in addition to review for state regulated pollutants.

Compliance Plan. A permit may have a compliance schedule attachment for listing corrective actions plans for any emission unit that is out of compliance with an applicable requirement.

Alternative Requirements. This attachment will list any alternative monitoring plans or alternative means of compliance for applicable requirements that have been approved by the EPA Administrator and/or the TCEQ Executive Director.

Appendix A

Acronym list. This attachment lists the common acronyms used when discussing the FOPs.

Stationary vents subject to 30 TAC Chapter 111, Subchapter A, § 111.111(a)(1)(B) addressed in the Special Terms and Conditions

The site contains stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) and constructed after January 31, 1972 which are limited, over a six-minute average, to 20% opacity as required by 30 TAC § 111.111(a)(1)(B). As a site may have a large number of stationary vents that fall into this category, they are not required to be listed individually in the permit's Applicable Requirement Summary. This is consistent with EPA's White Paper for

Streamlined Development of Part 70 Permit Applications, July 10, 1995, that states that requirements that apply identically to emission units at a site can be treated on a generic basis such as source-wide opacity limits.

Periodic monitoring is specified in Special Term and Condition 3 for stationary vents subject to 30 TAC § 111.111(a)(1)(B) to verify compliance with the 20% opacity limit. These vents are not expected to produce visible emissions during normal operation. The TCEQ evaluated the probability of these sources violating the opacity standards and determined that there is a very low potential that an opacity standard would be exceeded. It was determined that continuous monitoring for these sources is not warranted as there would be very limited environmental benefit in continuously monitoring sources that have a low potential to produce visible emissions. Therefore, the TCEQ set the visible observation monitoring frequency for these sources to once per calendar quarter.

The TCEQ has exempted vents that are not capable of producing visible emissions from periodic monitoring requirements. These vents include sources of colorless VOCs, non-fuming liquids, and other materials that cannot produce emissions that obstruct the transmission of light. Passive ventilation vents, such as plumbing vents, are also included in this category. Since this category of vents are not capable of producing opacity due to the physical or chemical characteristics of the emission source, periodic monitoring is not required as it would not yield any additional data to assure compliance with the 20% opacity standard of 30 TAC § 111.111(a)(1)(B).

In the event that visible emissions are detected, either through the quarterly observation or other credible evidence, such as observations from company personnel, the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 TAC § 111.111(a)(1)(B). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours. This will address possible emissions that may arise when switching fuel types.

Federal Regulatory Applicability Determinations
The following chart summarizes the applicability of the principal air pollution regulatory programs to the permit area:

Regulatory Program	Applicability (Yes/No)
Prevention of Significant Deterioration (PSD)	No
Nonattainment New Source Review (NNSR)	No
Minor NSR	Yes
40 CFR Part 60 - New Source Performance Standards	Yes
40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)	No
40 CFR Part 63 - NESHAPs for Source Categories	Yes
Title IV (Acid Rain) of the Clean Air Act (CAA)	No
Title V (Federal Operating Permits) of the CAA	Yes
Title VI (Stratospheric Ozone Protection) of the CAA	Yes
CSAPR (Cross-State Air Pollution Rule)	No

Basis for Applying Permit Shields
An operating permit applicant has the opportunity to specifically request a permit shield to document that specific applicable requirements do not apply to emission units in the permit. A permit shield is a special condition stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements. A permit shield has been requested in the application for specific emission units. For the permit shield requests that have been approved, the basis of determination for regulations that the owner/operator need not comply with are located in the "Permit Shield" attachment of the permit.

Insignificant Activities
In general, units not meeting the criteria for inclusion on either Form OP-SUM or Form OP-REQ1 are not required to be addressed in the operating permit application. Examples of these types of units include, but are not limited to, the following:

1. Office activities such as photocopying, blueprint copying, and photographic processes.
2. Sanitary sewage collection and treatment facilities other than those used to incinerate wastewater treatment plant sludge. Stacks or vents for sanitary sewer plumbing traps are also included.
3. Food preparation facilities including, but not limited to, restaurants and cafeterias used for preparing food or beverages primarily for consumption on the premises.
4. Outdoor barbecue pits, campfires, and fireplaces.
5. Laundry dryers, extractors, and tumblers processing bedding, clothing, or other fabric items generated primarily at the premises. This does not include emissions from dry cleaning systems using perchloroethylene or petroleum solvents.
6. Facilities storing only dry, sweet natural gas, including natural gas pressure regulator vents.
7. Any air separation or other industrial gas production, storage, or packaging facility. Industrial gases, for purposes of this list, include only oxygen, nitrogen, helium, neon, argon, krypton, and xenon.
8. Storage and handling of sealed portable containers, cylinders, or sealed drums.
9. Vehicle exhaust from maintenance or repair shops.
10. Storage and use of non-VOC products or equipment for maintaining motor vehicles operated at the site (including but not limited to, antifreeze and fuel additives).
11. Air contaminant detectors and recorders, combustion controllers and shut-off devices, product analyzers, laboratory analyzers, continuous emissions monitors, other analyzers and monitors, and emissions associated with sampling activities. Exception to this category includes sampling activities that are deemed fugitive emissions and under a regulatory leak detection and repair program.
12. Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including but not limited to, assorted vacuum producing devices and laboratory fume hoods.
13. Steam vents, steam leaks, and steam safety relief valves, provided the steam (or boiler feedwater) has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
14. Storage of water that has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
15. Well cellars.
16. Fire or emergency response equipment and training, including but not limited to, use of fire control equipment including equipment testing and training, and open burning of materials or fuels associated with firefighting training.
17. Crucible or pot furnaces with a brim full capacity of less than 450 cubic inches of any molten metal.
18. Equipment used exclusively for the melting or application of wax.
19. All closed tumblers used for the cleaning or deburring of metal products without abrasive blasting, and all open tumblers with a batch capacity of 1,000 lbs. or less.
20. Shell core and shell mold manufacturing machines.
21. Sand or investment molds with a capacity of 100 lbs. or less used for the casting of metals;
22. Equipment used for inspection of metal products.
23. Equipment used exclusively for rolling, forging, pressing, drawing, spinning, or extruding either hot or cold metals by some mechanical means.
24. Instrument systems utilizing air, natural gas, nitrogen, oxygen, carbon dioxide, helium, neon, argon, krypton, and xenon.

25. Battery recharging areas.
26. Brazing, soldering, or welding equipment.

Determination of Applicable Requirements

The tables below include the applicability determinations for the emission units, the index number(s) where applicable, and all relevant unit attribute information used to form the basis of the applicability determination. The unit attribute information is a description of the physical properties of an emission unit which is used to determine the requirements to which the permit holder must comply. For more information about the descriptions of the unit attributes specific Unit Attribute Forms may be viewed at www.tceq.texas.gov/permitting/air/nav/air_all_ua_forms.html.

A list of unit attribute forms is included at the end of this document. Some examples of unit attributes include construction date; product stored in a tank; boiler fuel type; etc.. Generally, multiple attributes are needed to determine the requirements for a given emission unit and index number. The table below lists these attributes in the column entitled "Basis of Determination." Attributes that demonstrate that an applicable requirement applies will be the factual basis for the specific citations in an applicable requirement that apply to a unit for that index number. The TCEQ Air Permits Division has developed flowcharts for determining applicability of state and federal regulations based on the unit attribute information in a Decision Support System (DSS). These flowcharts can be accessed via the internet at www.tceq.texas.gov/permitting/air/nav/air_supportsys.html. The Air Permits Division staff may also be contacted for assistance at (512) 239-1250.

The attributes for each unit and corresponding index number provide the basis for determining the specific legal citations in an applicable requirement that apply, including emission limitations or standards, monitoring, recordkeeping, and reporting. The rules were found to apply or not apply by using the unit attributes as answers to decision questions found in the flowcharts of the DSS. Some additional attributes indicate which legal citations of a rule apply. The legal citations that apply to each emission unit may be found in the Applicable Requirements Summary table of the draft permit. There may be some entries or rows of units and rules not found in the permit, or if the permit contains a permit shield, repeated in the permit shield area. These are sets of attributes that describe negative applicability, or; in other words, the reason why a potentially applicable requirement does not apply.

If applicability determinations have been made which differ from the available flowcharts, an explanation of the decisions involved in the applicability determination is specified in the column "Changes and Exceptions to RRT." If there were no exceptions to the DSS, then this column has been removed.

The draft permit includes all emission limitations or standards, monitoring, recordkeeping and reporting required by each applicable requirement. If an applicable requirement does not require monitoring, recordkeeping, or reporting, the word "None" will appear in the Applicable Requirements Summary table. If additional periodic monitoring is required for an applicable requirement, it will be explained in detail in the portion of this document entitled "Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected."

When attributes demonstrate that a unit is not subject to an applicable requirement, the applicant may request a permit shield for those items. The portion of this document entitled "Basis for Applying Permit Shields" specifies which units, if any, have a permit shield.

Operational Flexibility

When an emission unit has multiple operating scenarios, it will have a different index number associated with each operating condition. This means that units are permitted to operate under multiple operating conditions. The applicable requirements for each operating condition are determined by a unique set of unit attributes. For example, a tank may store two different products at different points in time. The tank may, therefore, need to comply with two distinct sets of requirements, depending on the product that is stored. Both sets of requirements are included in the permit, so that the permit holder may store either product in the tank.

Determination of Applicable Requirements

Unit ID	Regulation	Index Number	Basis of Determination*
GRP-ENGINE1	30 TAC Chapter 117, Subchapter B	117B-1	Type of Service = Used exclusively in emergency situations [claiming the emergency service exemption under 30 TAC §§ 117.103(a)(6)(D), 117.203(a)(6)(D), 117.303(a)(6)(D) or 117.403(a)(7)(D)] Fuel Fired = Petroleum-based diesel fuel
GRP-ENGINE1	40 CFR Part 60, Subpart IIII	60IIII-1	Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification on or before 07/11/2005.
GRP-ENGINE1	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-1	HAP Source = Any stationary source of hazardous air pollutants that is not a major source as defined in 40 CFR § 63.2. Brake HP = Stationary RICE with a brake HP less than 100 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Nonindustrial Emergency Engine = Stationary RICE is not defined in 40 CFR §63.6675 as a residential emergency RICE, a commercial emergency RICE, or an institutional emergency RICE. Service Type = Emergency use where the RICE does not operate as specified in 40 CFR §63.6640(f)(2)(ii) and (iii) or does not operate as specified in 40 CFR §63.6640(f)(4)(ii). Stationary RICE Type = Compression ignition engine
GRP-ENGINE2	30 TAC Chapter 117, Subchapter B	117B-1	Type of Service = Used exclusively in emergency situations [claiming the emergency service exemption under 30 TAC §§ 117.103(a)(6)(D), 117.203(a)(6)(D), 117.303(a)(6)(D) or 117.403(a)(7)(D)] Fuel Fired = Petroleum-based diesel fuel
GRP-ENGINE2	40 CFR Part 60, Subpart IIII	60IIII-1	Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification on or before 07/11/2005.
GRP-ENGINE2	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-1	HAP Source = Any stationary source of hazardous air pollutants that is not a major source as defined in 40 CFR § 63.2. Brake HP = Stationary RICE with a brake HP greater than or equal to 100 HP and less than 250 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Nonindustrial Emergency Engine = Stationary RICE is not defined in 40 CFR §63.6675 as a residential emergency RICE, a commercial emergency RICE, or an institutional emergency RICE. Service Type = Emergency use where the RICE does not operate as specified in 40 CFR §63.6640(f)(2)(ii) and (iii) or does not operate as specified in 40 CFR §63.6640(f)(4)(ii). Stationary RICE Type = Compression ignition engine
GRP-ENGINE3	30 TAC Chapter 117, Subchapter B	117B-1	Type of Service = Used exclusively in emergency situations [claiming the emergency service exemption under 30 TAC §§ 117.103(a)(6)(D), 117.203(a)(6)(D), 117.303(a)(6)(D) or 117.403(a)(7)(D)] Fuel Fired = Petroleum-based diesel fuel
GRP-ENGINE3	40 CFR Part 60, Subpart IIII	60IIII-1	Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification on or before 07/11/2005.

Unit ID	Regulation	Index Number	Basis of Determination*
GRP-ENGINE3	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-1	HAP Source = Any stationary source of hazardous air pollutants that is not a major source as defined in 40 CFR § 63.2. Brake HP = Stationary RICE with a brake HP greater than or equal to 250 HP and less than 300 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Nonindustrial Emergency Engine = Stationary RICE is not defined in 40 CFR §63.6675 as a residential emergency RICE, a commercial emergency RICE, or an institutional emergency RICE. Service Type = Emergency use where the RICE does not operate as specified in 40 CFR §63.6640(f)(2)(ii) and (iii) or does not operate as specified in 40 CFR §63.6640(f)(4)(ii). Stationary RICE Type = Compression ignition engine
GRP-ENGINE4	30 TAC Chapter 117, Subchapter B	117B-1	Type of Service = Used exclusively in emergency situations [claiming the emergency service exemption under 30 TAC §§ 117.103(a)(6)(D), 117.203(a)(6)(D), 117.303(a)(6)(D) or 117.403(a)(7)(D)] Fuel Fired = Petroleum-based diesel fuel
GRP-ENGINE4	40 CFR Part 60, Subpart IIII	60IIII-1	Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification on or before 07/11/2005.
GRP-ENGINE4	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-1	HAP Source = Any stationary source of hazardous air pollutants that is not a major source as defined in 40 CFR § 63.2. Brake HP = Stationary RICE with a brake HP greater than or equal to 300 HP and less than or equal to 500 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Nonindustrial Emergency Engine = Stationary RICE is not defined in 40 CFR §63.6675 as a residential emergency RICE, a commercial emergency RICE, or an institutional emergency RICE. Service Type = Emergency use where the RICE does not operate as specified in 40 CFR §63.6640(f)(2)(ii) and (iii) or does not operate as specified in 40 CFR §63.6640(f)(4)(ii). Stationary RICE Type = Compression ignition engine
GRP-TANK1	30 TAC Chapter 115, Storage of VOCs	115B-1	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = Other than crude oil, condensate, or VOC
GRP-TANK1	40 CFR Part 60, Subpart Kb	60Kb-1	Product Stored = Stored product other than volatile organic liquid or petroleum liquid
GRP-TANK1	40 CFR Part 61, Subpart FF	61FF-1	Waste Treatment Tank = The tank does not manage, treat or store a waste stream subject to 40 CFR Part 61, Subpart FF.
GRP-TANK1	40 CFR Part 61, Subpart Y	61Y-1	Tank Type = The storage tank or vessel stores benzene which is not within specific gravities defined in 40 CFR § 61.270(a)
GRP-TANK2	30 TAC Chapter 115, Storage of VOCs	115B-1	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.

Unit ID	Regulation	Index Number	Basis of Determination*
			Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is less than or equal to 1,000 gallons
GRP-TANK2	40 CFR Part 60, Subpart K	60K-1	Construction/Modification Date = After March 8, 1974 and on or before May 19, 1978 Storage Capacity = Capacity is 40,000 gallons (151,416 liters) or less
GRP-TANK2	40 CFR Part 61, Subpart FF	61FF-1	Waste Treatment Tank = The tank does not manage, treat or store a waste stream subject to 40 CFR Part 61, Subpart FF.
GRP-TANK2	40 CFR Part 61, Subpart Y	61Y-1	Tank Type = The storage tank or vessel stores benzene which is not within specific gravities defined in 40 CFR § 61.270(a)
GRP-TANK3	30 TAC Chapter 115, Storage of VOCs	115B-1	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is less than or equal to 1,000 gallons
GRP-TANK3	40 CFR Part 60, Subpart Kb	60Kb-1	Product Stored = Petroleum liquid (other than petroleum or condensate) Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
GRP-TANK3	40 CFR Part 61, Subpart FF	61FF-1	Waste Treatment Tank = The tank does not manage, treat or store a waste stream subject to 40 CFR Part 61, Subpart FF.
GRP-TANK3	40 CFR Part 61, Subpart Y	61Y-1	Tank Type = The storage tank or vessel stores benzene which is not within specific gravities defined in 40 CFR § 61.270(a)
V-539P	30 TAC Chapter 115, Storage of VOCs	115B-1	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons
V-539P	40 CFR Part 60, Subpart Kb	60Kb-1	Product Stored = Petroleum liquid (other than petroleum or condensate) Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
V-539P	40 CFR Part 61, Subpart FF	61FF-1	Waste Treatment Tank = The tank does not manage, treat or store a waste stream subject to 40 CFR Part 61, Subpart FF.

Unit ID	Regulation	Index Number	Basis of Determination*
V-539P	40 CFR Part 61, Subpart Y	61Y-1	Tank Type = The storage tank or vessel stores benzene which is not within specific gravities defined in 40 CFR § 61.270(a)
V-540P	30 TAC Chapter 115, Storage of VOCs	115B-1	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = Gasoline from a storage container in motor vehicle fuel dispensing service (as defined in 30 TAC Chapter 115) Storage Capacity = Capacity is less than 25,000 gallons
V-540P	40 CFR Part 60, Subpart Kb	60Kb-1	Product Stored = Petroleum liquid (other than petroleum or condensate) Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
V-540P	40 CFR Part 61, Subpart FF	61FF-1	Waste Treatment Tank = The tank does not manage, treat or store a waste stream subject to 40 CFR Part 61, Subpart FF.
V-540P	40 CFR Part 61, Subpart Y	61Y-1	Tank Type = The storage tank or vessel stores benzene which is not within specific gravities defined in 40 CFR § 61.270(a)
490-LDG	30 TAC Chapter 115, Loading and Unloading of VOC	115C-1	Chapter 115 Facility Type = Motor vehicle fuel dispensing facility
490-LDG	30 TAC Chapter 115, Loading and Unloading of VOC	115C-2	Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. Alternate Control Requirement (ACR) = No alternate control requirements are being utilized. Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline. Transfer Type = Loading and unloading. True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia. Daily Throughput = Loading less than 20,000 gallons per day.
490-LDG	30 TAC Chapter 115, Loading and Unloading of VOC	115C-3	Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. Alternate Control Requirement (ACR) = No alternate control requirements are being utilized. Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline. Transfer Type = Loading and unloading. True Vapor Pressure = True vapor pressure less than 0.5 psia.
GRP-LOAD	30 TAC Chapter 115, Loading and Unloading of VOC	115C-1	Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. Alternate Control Requirement (ACR) = No alternate control requirements are being utilized. Product Transferred = Liquefied petroleum gas (LPG) Transfer Type = Only unloading.

Unit ID	Regulation	Index Number	Basis of Determination*
GRP-LOAD	30 TAC Chapter 115, Loading and Unloading of VOC	115C-2	Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. Alternate Control Requirement (ACR) = No alternate control requirements are being utilized. Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline. Transfer Type = Only unloading. True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia. Daily Throughput = Loading less than 20,000 gallons per day.
REGVLOAD	30 TAC Chapter 115, Loading and Unloading of VOC	115C-1	Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. Alternate Control Requirement (ACR) = No alternate control requirements are being utilized. Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline. Transfer Type = Loading and unloading. True Vapor Pressure = True vapor pressure less than 0.5 psia.
GRP-HEATER	30 TAC Chapter 117, Subchapter B	117B-1	Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent. Fuel Flow Monitoring = Fuel flow is monitored with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a). Unit Type = Process heater CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option Maximum Rated Capacity = Maximum rated capacity is at least 2 MMBtu/hr, but less than 40 MMBtu/hr. CO Monitoring System = Emissions are monitored using methods other than CEMS or PEMS. NOx Emission Limit Basis = Emission limit in lb/hr (or ppm by volume at 15% oxygen, dry basis) on a block one-hour average NOx Reduction = No NO_x control method Fuel Type #1 = Natural gas NOx Monitoring System = Maximum emission rate testing [in accordance with 30 TAC § 117.8000] NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)
GRP-BOILER	30 TAC Chapter 117, Subchapter B	117B-1	NOx Emission Limitation = Title 30 TAC § 117.310(d)(3) [relating to mass emissions cap and trade in 30 TAC Chapter 101, Subchapter H, Division 3 and Emission Specifications for Attainment Demonstration]. Unit Type = Other industrial, commercial, or institutional boiler. Maximum Rated Capacity = MRC is greater than or equal to 100 MMBtu/hr but less than 200 MMBtu/hr. NOx Monitoring System = Continuous emissions monitoring system. Fuel Flow Monitoring = Fuel flow is monitored with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a). CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option. CO Monitoring System = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1). EGF System Cap Unit = The unit is not used as an electric generating facility to generate electricity for sale to the electric grid. Fuel Type #1 = Natural gas.

Unit ID	Regulation	Index Number	Basis of Determination*
			NOx Emission Limit Average = Emission limit in pounds/hour on a block one-hour average. NOx Reductions = No NO_x reduction. Annual Heat Input = Annual heat input is greater than $2.2(10^{11})$ Btu/yr, based on rolling 12-month average.
GRP-BOILER	40 CFR Part 60, Subpart Db	60Db-1	Construction/Modification Date = Constructed or reconstructed after July 9, 1997, and on or before February 28, 2005. D-Series Fuel Type #1 = Natural gas. Heat Input Capacity = Heat input capacity is greater than 100 MMBtu/hr (29 MW) but less than or equal to 250 MMBtu/hr (73 MW). PM Monitoring Type = No particulate monitoring. Opacity Monitoring Type = No particulate (opacity) monitoring. Subpart Da = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da. Changes to Existing Affected Facility = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281. NOx Monitoring Type = Continuous emission monitoring system. Electrical or Mechanical Output = 10% or less of the annual output is electrical or mechanical. SO2 Monitoring Type = No SO_2 monitoring. Subpart Ea, Eb or AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA. Subpart J = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J. Subpart E = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E. Subpart KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK. Technology Type = None. ACF Option - SO2 = Other ACF or no ACF. Subpart Cb or BBBB = The affected facility is not covered by an EPA approved State or Federal section 111(d)/129 plan implementing 40 CFR Part 60, Subpart Cb or BBBB emission guidelines. Unit Type = Duct burner as part of combined cycle system (compliance on a 30-day rolling average basis determined by using a continuous emission monitoring system). ACF Option - PM = Other ACF or no ACF. 60.49Da(n) Alternative = The facility is not using the § 60.49Da(n) alternative. ACF Option - NOx = Other ACF or no ACF. 60.49Da(m) Alternative = The facility is not using the § 60.49Da(m) alternative. Fuel Heat Input = The heat input is greater than 30% from combustion of coal and oil in the duct burner and heat input is less than 70% from the exhaust gases entering the duct burner.
PE-FLARE	30 TAC Chapter 111, Visible Emissions	111A-1	Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions. Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.

Unit ID	Regulation	Index Number	Basis of Determination*
PE-FLARE	30 TAC Chapter 115, HRVOC Vent Gas	115H-1	Monitoring Requirements = Flare is complying with the continuous monitoring requirements of § 115.725(d). Out of Service = Flare was not permanently out of service by April 1, 2006. Total Gas Stream = Flare receives a total gas stream with greater than 100 ppmv HRVOC at some time. Gas Stream Concentration = Flare receives a gas stream containing 5% or greater HRVOC by weight at some time. Alternative Monitoring = No alternative monitoring and test methods are used. Minor Modification = No minor modifications to the monitoring and test methods are used. Tank Service = Flare is not in dedicated service for storage tanks with 95% or greater of an individual HRVOC. Flare Type = Flare is in multi-purpose service.
PE-FLARE	40 CFR Part 60, Subpart A	60A-1	Subject to 40 CFR § 60.18 = Flare is subject to 40 CFR § 60.18. Adhering to Heat Content Specifications = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4). Flare Assist Type = Steam-assisted Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
PE-FLARE	40 CFR Part 60, Subpart A	60A-2	Subject to 40 CFR § 60.18 = Flare is subject to 40 CFR § 60.18. Adhering to Heat Content Specifications = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4). Flare Assist Type = Steam-assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
PE-FLARE	40 CFR Part 60, Subpart A	60A-3	Subject to 40 CFR § 60.18 = Flare is subject to 40 CFR § 60.18. Adhering to Heat Content Specifications = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4). Flare Assist Type = Steam-assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm)
PE-FLARE	40 CFR Part 63, Subpart A	63A-1	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Steam assisted Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
PE-FLARE	40 CFR Part 63, Subpart A	63A-2	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Steam assisted

Unit ID	Regulation	Index Number	Basis of Determination*
			Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
PE-FLARE	40 CFR Part 63, Subpart A	63A-3	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Steam assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm).
GRP-TURBINE	30 TAC Chapter 117, Subchapter B	117B-1	Fuel Flow Monitoring = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a). Megawatt Rating = MR is greater than or equal to 1 MW and less than 10 MW and unit is not an opt-in unit. CO Emission Limitation = Title 30 TAC § 117.310(c)(1). EGF System Cap Unit = The engine is not used as an electric generating facility to generate electricity for sale to the electric grid. Averaging Method = Complying with the applicable emission limits using a block one-hour average. CO Monitoring System = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1). Functionally Identical Replacement = The stationary gas turbine is not a functionally identical replacement for a unit or group of units. NOx Reduction = No NO_x reduction. Service Type = Stationary gas turbine. NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11). NOx Monitoring System = Continuous emissions monitoring system.
GRP-TURBINE	40 CFR Part 60, Subpart GG	60GG-1	Duct Burner = The turbine is part of a combined cycle turbine system equipped with supplemental heat (duct burner). NOx Control Method = No NO_x control method is used. Peak Load Heat Input = Heat Input is greater or equal to 10 MMBtu/hr (10.7 GJ/hr) and less than or equal to 100 MMBtu/hr (107.2 GJ/hr). Construction/Modification Date = On or after October 3, 1982 and before July 8, 2004. NOx Allowance = The owner or operator is not electing to use a NO_x allowance in determining emission limits in 40 CFR § 60.332(a). NOx Monitoring Method = Continuous emission monitoring system. Sulfur Content = Compliance is demonstrated by determining the sulfur content of the fuel. Turbine Cycle = Unit recovers heat from the gas turbine exhaust to heat water or generate steam. Fuel Type Fired = Natural gas meeting the definition in § 60.331(u). Subpart GG Service Type = Type of service other than research and development, emergency, military or electrical utility generation. Fuel Supply = Stationary gas turbine is supplied its fuel without intermediate bulk storage. Fuel Monitoring Schedule = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.

Unit ID	Regulation	Index Number	Basis of Determination*
GRP-FUG	30 TAC Chapter 115, HRVOC Fugitive Emissions	115H-1	Agitators = The fugitive unit contains agitators. Alternative Work Practice in § 115.358 = No components are complying with the alternative work practice requirements in 30 TAC § 115.358. Compressor Seals = The fugitive unit contains compressor seals. Open-ended Valves or Lines = The fugitive unit contains open-ended valves or lines. Process Drains = The fugitive unit does not contain process drains. Title 30 TAC §115.780 Applicable = The fugitive unit contains a defined process and Highly Reactive VOC. Valves (not pressure relief, open-ended or bypass line valves) = The fugitive unit contains valves other than pressure relief, open-ended or bypass line valves. ACR = No open-ended valves or lines are complying with an alternate control requirement. Less Than 250 Components at Site = The fugitive unit is located at a site with at least 250 fugitive components in VOC service. Weight Percent HRVOC = Components in the fugitive unit contact process fluids that contain less than 5.0% HRVOC by weight and process fluids that contain HRVOC at 5.0%, or greater, by weight on an annual average basis. Complying with § 115.781(b)(9) = Open-ended valves or lines are complying with the requirements of § 115.781(b)(9). Pumps with Shaft Seal System = Pumps are equipped with a shaft sealing system that prevents or detects emission of VOC from the seal. Bypass Line Valves = The fugitive unit does not contain bypass line valves. Compressors with Shaft Seal System = Compressors are equipped with a shaft sealing system that prevents or detects emission of VOC from the seal. Flanges or Other Connectors = The fugitive unit contains flanges or other connectors. Heat Exchanger Heads, etc. = The fugitive unit contains heat exchanger heads, sight glasses, meters, gauges, sampling connections, bolter manways, hatches, sump covers, junction vent boxes or covers and seals on VOC water separators. Pressure Relief Valves = The fugitive unit contains pressure relief valves. Pump Seals = The fugitive unit contains pump seals. ACR = No pressure relief valves are complying with an alternate control requirement. Agitators with Shaft Seal System = Agitators are equipped with a shaft sealing system that prevents or detects emission of VOC from the seal. Complying with § 115.781(b)(9) = Pressure relief valves are complying with the requirements of § 115.781(b)(9).
GRP-FUG	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	R5352-ALL	SOP/GOP Index No. = Owner/Operator assumes VOC fugitive control requirements for all components subject to 30 TAC Chapter 115, Subchapter D, Division 3 with no alternate control or control device.
GRP-FUG	40 CFR Part 60, Subpart DDD	60DDD-ALL	SOP Index No. = Owner of operator assumes fugitive control requirements for all components in VOC service subject to 40 CFR Part 60, Subpart DDD with no alternate control or control device.
GRP-FUG	40 CFR Part 60, Subpart VV	60VV-1	Produces Chemicals = The fugitive unit is not part of a facility that produces as an intermediate or final product one or more of the chemicals listed in 40 CFR § 60.489.
GRP-FUG	40 CFR Part 63, Subpart FFFF	63FFFF-1	Existing Source = Fugitive unit contains equipment in an existing Miscellaneous Chemical Processing Unit.

Unit ID	Regulation	Index Number	Basis of Determination*
PE-CVS	30 TAC Chapter 115, HRVOC Fugitive Emissions	115H-1	Agitators = The fugitive unit does not contain agitators. Alternative Work Practice in § 115.358 = No components are complying with the alternative work practice requirements in 30 TAC § 115.358. Compressor Seals = The fugitive unit does not contain compressor seals. Open-ended Valves or Lines = The fugitive unit contains open-ended valves or lines. Process Drains = The fugitive unit does not contain process drains. Title 30 TAC §115.780 Applicable = The fugitive unit contains a defined process and Highly Reactive VOC. Valves (not pressure relief, open-ended or bypass line valves) = The fugitive unit contains valves other than pressure relief, open-ended or bypass line valves. ACR = No open-ended valves or lines are complying with an alternate control requirement. Less Than 250 Components at Site = The fugitive unit is located at a site with at least 250 fugitive components in VOC service. Weight Percent HRVOC = Components in the fugitive unit contact process fluids that contain less than 5.0% HRVOC by weight and process fluids that contain HRVOC at 5.0%, or greater, by weight on an annual average basis. Complying with § 115.781(b)(9) = Open-ended valves or lines are complying with the requirements of § 115.781(b)(9). Pumps with Shaft Seal System = No pumps are equipped with a shaft sealing system that prevents or detects emission of VOC from the seal. Bypass Line Valves = The fugitive unit does not contain bypass line valves. Compressors with Shaft Seal System = No compressors are equipped with a shaft sealing system that prevents or detects emission of VOC from the seal. Flanges or Other Connectors = The fugitive unit contains flanges or other connectors. Heat Exchanger Heads, etc. = The fugitive unit contains heat exchanger heads, sight glasses, meters, gauges, sampling connections, bolter manways, hatches, sump covers, junction vent boxes or covers and seals on VOC water separators. Pressure Relief Valves = The fugitive unit does not contain pressure relief valves. Pump Seals = The fugitive unit does not contain pump seals. ACR = No flanges or other connectors are complying with an alternate control requirement. Agitators with Shaft Seal System = No agitators are equipped with a shaft sealing system that prevents or detects emission of VOC from the seal. Complying with § 115.781(b)(9) = Flanges or other connectors are complying with the requirements of § 115.781(b)(9).
PE-CVS	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	R5352-ALL	SOP/GOP Index No. = Owner/Operator assumes VOC fugitive control requirements for all components subject to 30 TAC Chapter 115, Subchapter D, Division 3 with no alternate control or control device.
PE-CVS	40 CFR Part 60, Subpart DDD	60DDD-ALL	SOP Index No. = Owner of operator assumes fugitive control requirements for all components in VOC service subject to 40 CFR Part 60, Subpart DDD with no alternate control or control device.
PE-CVS	40 CFR Part 60, Subpart VV	60VV-1	Produces Chemicals = The fugitive unit is not part of a facility that produces as an intermediate or final product one or more of the chemicals listed in 40 CFR § 60.489.
GRP-TOWER	30 TAC Chapter 115, HRVOC Cooling Towers	115H-1	Cooling Tower Heat Exchange System Exemptions = The cooling tower heat exchange system does not qualify for an exemption. Jacketed Reactor = The cooling tower heat exchange system is not in dedicated service to a jacketed reactor. Alternative Monitoring = Complying with the specified monitoring in 30 TAC § 115.764.

Unit ID	Regulation	Index Number	Basis of Determination*
			Design Capacity = Design capacity to circulate 8000 gpm or greater. Finite Volume System = The cooling tower heat exchange system is complying with the requirements in § 115.764(a). Modified Monitoring = NOT USING MINOR MODIFICATIONS TO THE MONITORING AND TESTING METHODS IN 30 TAC § 115.764. Flow Monitoring/Testing Method = Choosing to use the maximum potential flow rate based on the manufacturer's pump performance data in accordance with §115.764(e)(1). Total Strippable VOC = The cooling tower heat exchange system is complying with the requirements of § 115.764(a). On-Line Monitor = A continuous on-line monitor capable of providing total HRVOC and speciated HRVOCs in ppbw is being used.
GRP-TOWER	30 TAC Chapter 115, HRVOC Cooling Towers	115H-2	Cooling Tower Heat Exchange System Exemptions = The cooling tower heat exchange system does not qualify for an exemption. Jacketed Reactor = The cooling tower heat exchange system is not in dedicated service to a jacketed reactor. Alternative Monitoring = Complying with the specified monitoring in 30 TAC § 115.764. Design Capacity = Design capacity to circulate 8000 gpm or greater. Finite Volume System = The cooling tower heat exchange system is complying with the requirements in § 115.764(a). Modified Monitoring = NOT USING MINOR MODIFICATIONS TO THE MONITORING AND TESTING METHODS IN 30 TAC § 115.764. Flow Monitoring/Testing Method = Choosing to use a continuous flow monitor on each inlet of each cooling tower in accordance with § 115.764(a)(1), (b)(1), or (h)(1). Total Strippable VOC = The cooling tower heat exchange system is complying with the requirements of § 115.764(a). On-Line Monitor = A continuous on-line monitor capable of providing total HRVOC and speciated HRVOCs in ppbw is being used.
GRP-TOWER	40 CFR Part 63, Subpart Q	63Q-1	Used Compounds Containing Chromium on or After September 8, 1994 = The industrial process cooling tower has not used compounds containing chromium on or after September 8, 1994.
GRP-VENT1	30 TAC Chapter 115, HRVOC Vent Gas	115H-1	Alternative Monitoring = Not using alternative monitoring and testing methods. HRVOC Concentration = The vent gas stream has a HRVOC concentration of at least 100 ppmv at some times. Max Flow Rate = The vent gas stream has a maximum potential flow rate less than or equal to 100 dry standard cubic feet per hour (ft3/hr). Exempt Date = The vent gas stream is not exempt. Minor Modification = Not using any minor modification to the monitoring and testing methods of the rule. Vent Gas Stream Control = Vent gas stream is uncontrolled. Process Knowledge = Process knowledge and engineering calculations are used to determine HRVOC emissions during emission events and scheduled startup, shutdown, and maintenance activities. Waived Testing = The executive director has not waived testing for identical vents. Testing Requirements = Testing procedures specified in § 115.125 were conducted prior to December 31, 2004, and they are being used in lieu of conducting new tests.
GRP-VENT1	30 TAC Chapter 115, Vent Gas Controls	115B-1	Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source. Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2. Vent Type = Vent gas stream is emitted from a liquid phase slurry high-density polyethylene manufacturing process.

Unit ID	Regulation	Index Number	Basis of Determination*
			Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg). VOC Concentration/Emission Rate @ Max Operating Conditions = Either the VOC concentration or emission rate is greater than the applicable exemption limit at maximum actual operating conditions or the alternate recordkeeping requirements of 30 TAC § 115.126(4) are not being selected.
GRP-VENT1	40 CFR Part 63, Subpart FFFF	63FFFF-1	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.
GRP-VENT2	30 TAC Chapter 115, Vent Gas Controls	115B-1	Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source. Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2. Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule. Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg). VOC Concentration/Emission Rate @ Max Operating Conditions = Either the VOC concentration or emission rate is greater than the applicable exemption limit at maximum actual operating conditions or the alternate recordkeeping requirements of 30 TAC § 115.126(4) are not being selected.
GRP-VENT2	30 TAC Chapter 115, Vent Gas Controls	115B-2	Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source. Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2. Vent Type = Vent gas stream is emitted from a liquid phase slurry high-density polyethylene manufacturing process. Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg). VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.
GRP-VENT2	40 CFR Part 63, Subpart FFFF	63FFFF-1	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.
GRP-VENT3	30 TAC Chapter 115, HRVOC Vent Gas	115H-1	HRVOC Concentration = The vent gas stream has a HRVOC concentration of at least 100 ppmv at some times. Max Flow Rate = The vent gas stream has a maximum potential flow rate greater than 100 dry standard cubic feet per hour (ft3/hr). Vent Gas Stream Control = Vent gas stream is controlled by a flare.
GRP-VENT3	30 TAC Chapter 115, Vent Gas Controls	115B-1	Alternate Control Requirement = Alternate control is not used. Control Device Type = Smokeless flare Vent Type = Vent gas stream is emitted from a liquid phase slurry high-density polyethylene manufacturing process. Combined 24-Hour VOC Weight = Combined VOC weight is greater than 100 pounds (45.4 kg). VOC Concentration = VOC concentration is greater than or equal to 408 ppmv.

Unit ID	Regulation	Index Number	Basis of Determination*
GRP-VENT4	30 TAC Chapter 115, HRVOC Vent Gas	115H-1	HRVOC Concentration = The vent gas stream has a HRVOC concentration of at least 100 ppmv at some times. Max Flow Rate = The vent gas stream has a maximum potential flow rate greater than 100 dry standard cubic feet per hour (ft3/hr). Vent Gas Stream Control = Vent gas stream is controlled by a flare.
PE-CVS-V	30 TAC Chapter 115, HRVOC Vent Gas	115H-1	HRVOC Concentration = The vent gas stream has a HRVOC concentration of at least 100 ppmv at some times. Max Flow Rate = The vent gas stream has a maximum potential flow rate less than or equal to 100 dry standard cubic feet per hour (ft3/hr). Exempt Date = The vent gas stream is not exempt. Vent Gas Stream Control = Vent gas stream is controlled by a flare.
PE-CVS-V	30 TAC Chapter 115, Vent Gas Controls	115B-1	Alternate Control Requirement = Alternate control is not used. Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source. Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2. Control Device Type = Smokeless flare Vent Type = Vent gas stream is emitted from a liquid phase slurry high-density polyethylene manufacturing process.
PE-CVS-V	40 CFR Part 63, Subpart FFFF	63FFFF-1	Designated Grp1 = The emission stream is designated as Group 1. Emission Standard = The TRE index is not maintained above the threshold (5.0 for a new source and 1.9 for an existing source) and a flare is being used for control. Designated Hal = The emission stream is not designated as halogenated. Determined Hal = The emission stream is determined to be non-halogenated. Prior Eval = The data from a prior evaluation or assessment is not used. Assessment Waiver = The Administrator has not granted a waiver of compliance assessment or a waiver has not been requested. Negative Pressure = The closed vent system is operated and maintained at or above atmospheric pressure. Bypass Line = No bypass lines.
PE-LOAD	30 TAC Chapter 115, HRVOC Vent Gas	115H-1	Alternative Monitoring = Not using alternative monitoring and testing methods. HRVOC Concentration = The vent gas stream has a HRVOC concentration of at least 100 ppmv at some times. Max Flow Rate = The vent gas stream has a maximum potential flow rate less than or equal to 100 dry standard cubic feet per hour (ft3/hr). Exempt Date = The vent gas stream is not exempt. Minor Modification = Not using any minor modification to the monitoring and testing methods of the rule. Vent Gas Stream Control = Vent gas stream is uncontrolled. Process Knowledge = Process knowledge and engineering calculations are used to determine HRVOC emissions during emission events and scheduled startup, shutdown, and maintenance activities. Waived Testing = The executive director has not waived testing for identical vents. Testing Requirements = Testing procedures specified in § 115.125 were conducted prior to December 31, 2004, and they are being used in lieu of conducting new tests.

Unit ID	Regulation	Index Number	Basis of Determination*
PE-LOAD	30 TAC Chapter 115, Vent Gas Controls	115B-1	Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source. Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2. Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule. Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg). VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.
PE-LOAD	40 CFR Part 63, Subpart FFFF	63FFFF-1	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.
PE-T1	30 TAC Chapter 115, Vent Gas Controls	115B-1	Alternate Control Requirement = Alternate control is not used. Chapter 115 Division = The vent stream originates from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source. Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2. Control Device Type = Direct flame incinerator in which the vent gas stream is burned at a temperature or at least 1300° F (704 C). Vent Type = Vent gas stream is emitted from a liquid phase slurry high-density polyethylene manufacturing process.
PE-T1	30 TAC Chapter 115, Vent Gas Controls	115B-2	Alternate Control Requirement = Alternate control is not used. Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source. Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2. Control Device Type = Direct flame incinerator in which the vent gas stream is burned at a temperature or at least 1300° F (704 C). Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.
PE-T1	40 CFR Part 63, Subpart FFFF	63FFFF-1	Designated Grp1 = The emission stream is designated as Group 1. Emission Standard = The TRE index is not maintained above the threshold (5.0 for a new source and 1.9 for an existing source) and a non-flare CD is being used to meet 98% reduction per § 63.2455(a) - Table 1.1.a.i. Meets 63.988(b)(2) = The control device does not meet the criteria in § 63.985(b)(2). Small Device = A small control device (defined in § 63.2550) is not being used. Designated Hal = The emission stream is not designated as halogenated. Prior Eval = The data from a prior evaluation or assessment is not used. Assessment Waiver = The Administrator has not granted a waiver of compliance assessment or no waiver is requested. Determined Hal = The emission stream is determined to be non-halogenated. Alt 63SS Mon Parameters = Alternate monitoring parameters or requirements have not been approved by the Administrator or have not been

Unit ID	Regulation	Index Number	Basis of Determination*
			requested. Formaldehyde = The stream does not contain formaldehyde. Negative Pressure = The closed vent system is operated and maintained at or above atmospheric pressure. Bypass Line = No bypass lines. CEMS = A CEMS is not used. SS Device Type = Incinerator other than a catalytic incinerator.
GRP-DISTILL	40 CFR Part 60, Subpart NNN	60NNN-1	Subpart NNN Chemicals = The distillation unit does not produce any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate.
GRP-COAT	30 TAC Chapter 115, Surface Coating Operations	115E-1	Alternative Compliance Method = No alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria has been approved by the TCEQ Executive Director or no such alternate has been requested. Facility Operations = Other miscellaneous metal parts and products coating. Maintenance Shop = Recoating used miscellaneous metal parts and products at an on-site maintenance shop that began operations before January 1, 2012. VOC Emission Rate = All surface coating operations on a property, when uncontrolled, emit a combined weight of less than 3 lb/hr and less than 15 lb/24-hr period.
GRP-COAT	30 TAC Chapter 115, Surface Coating Operations	115E-2	Alternate Requirements = No alternate requirement to 30 TAC §§ 115.421(a)(9) or 115.421(b)(8) has been approved or no alternate has been requested. Alternative Compliance Method = No alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria has been approved by the TCEQ Executive Director or no such alternate has been requested. Facility Operations = Other miscellaneous metal parts and products coating. Miscellaneous Coating Type = Clear coat or an interior protective coating for pails and drums. Maintenance Shop = Recoating used miscellaneous metal parts and products at an on-site maintenance shop that began operations before January 1, 2012. VOC Emission Rate = Uncontrolled emission rates not qualifying for exemption from control. Vapor Recovery = No vapor recovery system is used to control emissions.
GRP-COAT	30 TAC Chapter 115, Surface Coating Operations	115E-3	Alternate Requirements = No alternate requirement to 30 TAC §§ 115.421(a)(9) or 115.421(b)(8) has been approved or no alternate has been requested. Alternative Compliance Method = No alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria has been approved by the TCEQ Executive Director or no such alternate has been requested. Facility Operations = Other miscellaneous metal parts and products coating. Miscellaneous Coating Type = Extreme performance coating, including chemical milling maskants. Maintenance Shop = Recoating used miscellaneous metal parts and products at an on-site maintenance shop that began operations before January 1, 2012. VOC Emission Rate = Uncontrolled emission rates not qualifying for exemption from control. Vapor Recovery = No vapor recovery system is used to control emissions.

Unit ID	Regulation	Index Number	Basis of Determination*
GRP-COAT	30 TAC Chapter 115, Surface Coating Operations	115E-4	Alternate Requirements = No alternate requirement to 30 TAC §§ 115.421(a)(9) or 115.421(b)(8) has been approved or no alternate has been requested. Alternative Compliance Method = No alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria has been approved by the TCEQ Executive Director or no such alternate has been requested. Facility Operations = Other miscellaneous metal parts and products coating. Miscellaneous Coating Type = Coating type other than low-bake coatings, coating using air or forced air dryers, extreme performance and clear coat/interior protective coating for pails and drums. Maintenance Shop = Recoating used miscellaneous metal parts and products at an on-site maintenance shop that began operations before January 1, 2012. VOC Emission Rate = Uncontrolled emission rates not qualifying for exemption from control. Vapor Recovery = No vapor recovery system is used to control emissions.
GRP-POLYMER1	40 CFR Part 60, Subpart DDD	60DDD-1	Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561). Manufactured Product = Polypropylene or polyethylene. Polyolefin Production = Only one polyolefin is produced or no polyolefin is produced. Continuous Process = The affected facility process is continuous. Process Emissions = Individual vent gas streams emit continuous emissions. Construction/Modification Date = After January 10, 1989. Experimental Process Line = The affected facility is a production process line. Weight Percent TOC = Weight percent of total organic compounds is less than 0.10%.
GRP-POLYMER2	40 CFR Part 60, Subpart DDD	60DDD-1	Control of Continuous Emissions = All continuous emissions are controlled in an existing control device (as defined in 40 CFR § 60.561). Emergency Vent = Emissions are not an emergency vent stream from a new, modified, or reconstructed facility. Manufactured Product = Polypropylene or polyethylene. Polyolefin Production = Only one polyolefin is produced or no polyolefin is produced. Continuous Control Device = Flare. Continuous Process = The affected facility process is continuous. Existing Control Device = The vent stream is controlled in an existing control device (as defined in 40 CFR ‘ 60.561) which has not been reconstructed, replaced, or its operating conditions modified as a result of state or local regulations. Process Emissions = Process contains vent gas streams, some of which are emitted continuously and some which are emitted intermittently. Construction/Modification Date = After January 10, 1989. Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) or greater. Annual Emissions Entering the Control Device = Annual emissions entering the control device are greater than or equal to the calculated threshold emissions levels calculated in Table 3. Experimental Process Line = The affected facility is a production process line. Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater. Emission Reduction from Control Device = Existing control device (as defined in 40 CFR § 60.561) reduces emissions by 98 percent or greater, or exit concentration is 20 ppmv or less.

Unit ID	Regulation	Index Number	Basis of Determination*
			Table 2 Threshold Emission Rates = The uncontrolled emission rate is less than or equal to the uncontrolled threshold emission rates in Table 2 of 40 CFR § 60.560.
PE-T1	40 CFR Part 60, Subpart DDD	60DDD-1	Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561). Manufactured Product = Polypropylene or polyethylene. Polyolefin Production = Only one polyolefin is produced or no polyolefin is produced. Continuous Process = The affected facility process is continuous. Process Emissions = Individual vent gas streams emit continuous emissions. Construction/Modification Date = After January 10, 1989. Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) or greater. Experimental Process Line = The affected facility is a production process line. Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater. Table 3 Control Requirements = Calculations from Table 3 do not require controls. Table 2 Threshold Emission Rates = The uncontrolled emission rate is less than or equal to the uncontrolled threshold emission rates in Table 2 of 40 CFR § 60.560.
GRP-REACTOR	40 CFR Part 60, Subpart RRR	60RRR-1	Chemicals Listed in 40 CFR § 60.707 = The affected facility is not part of a process unit that produces chemicals listed in 40 CFR § 60.707 as a product, co-product, by product, or intermediate.
PRO-POLYE	40 CFR Part 63, Subpart FFFF	63FFFF-1	>1000 lb/yr = The process has uncontrolled hydrogen halide and halogen HAP emissions from process vents of less than 1,000 lb/yr. Ammonium Sulfate = The MCPU does not include the manufacture of ammonium sulfate as a by-product, or the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less or 10 ppmw benzene or less. Startup 2003 = The affected source startup was before November 10, 2003. Other Operations = The MCPU includes operations other than those listed in § 63.2435(c). Shared Batch Vent = The MCPU does not include a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63. 63.100 CMPU = The MCPU is not a CMPU defined in § 63.100. New Source = The MCPU is an existing affected source. PUG = The MCPU is not part of a process unit group (PUG). G2/<1000 lb/yr = The process does not include Group 2 batch process vents and/or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. Startup 2002 = The affected source initial startup was before April 4, 2002. PP Alt = The MCPU is complying with the emission limitations and work practice standards contained in Tables 1 through 7. Batch Process Vents = The source does not include batch process vents.

* - The “unit attributes” or operating conditions that determine what requirements apply

NSR vs. Title V FOP

The state of Texas has two Air permitting programs, New Source Review (NSR) and Title V Federal Operating Permits. The two programs are substantially different both in intent and permit content.

NSR is a preconstruction permitting program authorized by the Texas Clean Air Act and Title I of the Federal Clean Air Act (FCAA). The processing of these permits is governed by 30 Texas Administrative Code (TAC) Chapter 116.111. The Title V Federal Operating Program is a federal program authorized under Title V of the FCAA that has been delegated to the state of Texas to administer and is governed by 30 TAC Chapter 122. The major differences between the two permitting programs are listed in the table below:

NSR Permit	Federal Operating Permit(FOP)
Issued Prior to new Construction or modification of an existing facility	For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.
Authorizes air emissions	Codifies existing applicable requirements, does not authorize new emissions
Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented.	Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.
Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.	One public notice required. Opportunity for public comments. No contested case hearings.
Applies to all point source emissions in the state.	Applies to all major sources and some non-major sources identified by the EPA.
Applies to facilities: a portion of site or individual emission sources	One or multiple FOPs cover the entire site (consists of multiple facilities)
Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.	Permits include terms and conditions that specify the general operational requirements of the site; and also include codification of all applicable requirements for emission units at the site.
Opportunity for EPA review for Federal Prevention of Significant Deterioration (PSD) and Nonattainment (NA) permits for major sources.	Opportunity for EPA review, Affected states review, and a Public petition period for every FOP.
Permits have a table listing maximum emission limits for pollutants	Permit has an applicable requirements table and Periodic Monitoring (PM) / Compliance Assurance Monitoring (CAM) tables which document applicable monitoring requirements.
Permits can be altered or amended upon application by company. Permits must be issued before construction or modification of facilities can begin.	Permits can be revised through several revision processes, which provide for different levels of public notice and opportunity to comment. Changes that would be significant revisions require that a revised permit be issued before those changes can be operated.
NSR permits are issued independent of FOP requirements.	FOP are independent of NSR permits, but contain a list of all NSR permits incorporated by reference

New Source Review Requirements

Below is a list of the New Source Review (NSR) permits for the permitted area. These NSR permits are incorporated by reference into the operating permit and are enforceable under it. These permits can be found in the main TCEQ file room, located on the first floor of Building E, 12100 Park 35 Circle, Austin, Texas. The Public Education Program may be contacted at 1-800-687-4040 or the Air Permits Division (APD) may be contacted at 1-512-239-1250 for help with any question.

Additionally, the site contains emission units that are permitted by rule under the requirements of 30 TAC Chapter 106, Permits by Rule. The following table specifies the permits by rule that apply to the site. All current permits by rule are contained in Chapter 106. Outdated 30 TAC Chapter 106 permits by rule may be viewed at the following Web site:
www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html

Outdated Standard Exemption lists may be viewed at the following Web site:
www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html

The status of air permits and applications and a link to the Air Permits Remote Document Server is located at the following Web site:
www.tceq.texas.gov/permitting/air/nav/air_status_permits.html

New Source Review Authorization References

Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 49823	Issuance Date: 06/29/2012
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.122	Version No./Date: 09/04/2000
Number: 106.183	Version No./Date: 06/18/1997
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.373	Version No./Date: 09/04/2000
Number: 106.393	Version No./Date: 09/04/2000
Number: 106.394	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 03/14/1997
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.476	Version No./Date: 09/04/2000
Number: 106.478	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 03/14/1997
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.512	Version No./Date: 06/13/2001
Number: 5	Version No./Date: 05/05/1976
Number: 5	Version No./Date: 09/12/1989

New Source Review Authorization References

Number: 5	Version No./Date: 07/20/1992
Number: 5	Version No./Date: 09/13/1993
Number: 5	Version No./Date: 06/07/1996
Number: 7	Version No./Date: 05/05/1976
Number: 7	Version No./Date: 09/23/1982
Number: 7	Version No./Date: 09/12/1989
Number: 14	Version No./Date: 09/12/1989
Number: 51	Version No./Date: 09/12/1989
Number: 51	Version No./Date: 07/20/1992
Number: 51	Version No./Date: 06/07/1996
Number: 53	Version No./Date: 09/13/1993
Number: 57	Version No./Date: 05/05/1976
Number: 61	Version No./Date: 11/05/1986
Number: 75	Version No./Date: 11/05/1986
Number: 86	Version No./Date: 09/12/1989
Number: 86	Version No./Date: 07/20/1992
Number: 102	Version No./Date: 11/05/1986
Number: 107	Version No./Date: 09/13/1993

Emission Units and Emission Points
In air permitting terminology, any source capable of generating emissions (for example, an engine or a sandblasting area) is called an Emission Unit. For purposes of Title V, emission units are specifically listed in the operating permit when they have applicable requirements other than New Source Review (NSR), or when they are listed in the permit shield table.

The actual physical location where the emissions enter the atmosphere (for example, an engine stack or a sand-blasting yard) is called an emission point. For New Source Review preconstruction permitting purposes, every emission unit has an associated emission point. Emission limits are listed in an NSR permit, associated with an emission point. This list of emission points and emission limits per pollutant is commonly referred to as the “Maximum Allowable Emission Rate Table”, or “MAERT” for short. Specifically, the MAERT lists the Emission Point Number (EPN) that identifies the emission point, followed immediately by the Source Name, identifying the emission unit that is the source of those emissions on this table.

Thus, by reference, an emission unit in a Title V operating permit is linked by reference number to an NSR authorization, and its related emission point.

Monitoring Sufficiency
Federal and state rules, 40 CFR § 70.6(a)(3)(i)(B) and 30 TAC § 122.142(c) respectively, require that each federal operating permit include additional monitoring for applicable requirements that lack periodic or instrumental monitoring (which may include recordkeeping that serves as monitoring) that yields reliable data from a relevant time period that are representative of the emission unit’s compliance with the applicable emission limitation or standard. Furthermore, the federal operating permit must include compliance assurance monitoring (CAM) requirements for emission sources that meet the applicability criteria of 40 CFR Part 64 in accordance with 40 CFR § 70.6(a)(3)(i)(A) and 30 TAC § 122.604(b).

With the exception of any emission units listed in the Periodic Monitoring or CAM Summaries in the FOP, the TCEQ Executive Director has determined that the permit contains sufficient monitoring, testing, recordkeeping, and reporting requirements that assure compliance with the applicable requirements. If applicable, each emission unit that requires additional monitoring in the form of periodic monitoring or CAM is described in further detail under the Rationale for CAM/PM Methods Selected section following this paragraph.

Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected

Compliance Assurance Monitoring (CAM):
Compliance Assurance Monitoring (CAM) is a federal monitoring program established under Title 40 Code of Federal Regulations Part 64 (40 CFR Part 64).

Emission units are subject to CAM requirements if they meet the following criteria:

1. the emission unit is subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement;

2. the emission unit uses a control device to achieve compliance with the emission limitation or standard specified in the applicable requirement; and

3. the emission unit has the pre-control device potential to emit greater than or equal to the amount in tons per year for a site to be classified as a major source.

The following table(s) identify the emission unit(s) that are subject to CAM:

Unit/Group/Process Information	
ID No.: PE-T1	
Control Device ID No.: PE-RTO	Control Device Type: Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: 115B-2
Pollutant: VOC	Main Standard: § 115.122(a)(1)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: once per day	
Averaging Period: n/a*	
Deviation Limit: Minimum combustion temperature shall not be below 1400 degrees F.	
Basis of CAM: It is widely practiced and accepted to use performance tests, manufacturer's recommendations, engineering calculations and/or historical data to establish a minimum temperature for thermal incinerators. This minimum temperature must be maintained in order for the proper destruction efficiency. Operation below the minimum combustion temperature will result in incomplete combustion and potential noncompliance with emission limitations and/or standards. The monitoring of the combustion temperature of a thermal incinerator is commonly required in federal and state rules, including: 40 CFR Part 60, Subparts III, NNN, QQQ, and RRR; 40 CFR Part 61, Subparts BB and FF; 40 CFR Part 63, Subparts G, R, DD, EE, and HH; and 30 TAC Chapter 115.	

*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

Compliance Review

1. In accordance with 30 TAC Chapter 60, the compliance history was reviewed on 08/01/2017.
   Site rating: 2.75 / Satisfactory Company rating: 5.36 / Satisfactory
   (High < 0.10; Satisfactory ≥ 0.10 and ≤ 55; Unsatisfactory > 55)
2. Has the permit changed on the basis of the compliance history or site/company rating?.....No

Site/Permit Area Compliance Status Review

1. Were there any out-of-compliance units listed on Form OP-ACPS?.....Yes
2. Is a compliance plan and schedule included in the permit? .....Yes

Permit reviewer notes:

- An updated OP-ACPS form was received on 05/17/2017 which indicated that several process vents to atmosphere were discovered to not have pre-authorization. A draft Compliance Plan was submitted to Region 12 on 06/06/2017 for a 30-day review period. Region 12 responded on 07/06/2017 with additional comments. INEOS responded to the Region 12 additional comments on 07/28/2017. Region 12 approved the updated Compliance Plan on 08/01/2017.

Available Unit Attribute Forms

OP-UA1 - Miscellaneous and Generic Unit Attributes
OP-UA2 - Stationary Reciprocating Internal Combustion Engine Attributes
OP-UA3 - Storage Tank/Vessel Attributes
OP-UA4 - Loading/Unloading Operations Attributes
OP-UA5 - Process Heater/Furnace Attributes
OP-UA6 - Boiler/Steam Generator/Steam Generating Unit Attributes
OP-UA7 - Flare Attributes
OP-UA8 - Coal Preparation Plant Attributes
OP-UA9 - Nonmetallic Mineral Process Plant Attributes
OP-UA10 - Gas Sweetening/Sulfur Recovery Unit Attributes
OP-UA11 - Stationary Turbine Attributes
OP-UA12 - Fugitive Emission Unit Attributes
OP-UA13 - Industrial Process Cooling Tower Attributes
OP-UA14 - Water Separator Attributes
OP-UA15 - Emission Point/Stationary Vent/Distillation Operation/Process Vent Attributes
OP-UA16 - Solvent Degreasing Machine Attributes
OP-UA17 - Distillation Unit Attributes
OP-UA18 - Surface Coating Operations Attributes
OP-UA19 - Wastewater Unit Attributes
OP-UA20 - Asphalt Operations Attributes
OP-UA21 - Grain Elevator Attributes
OP-UA22 - Printing Attributes
OP-UA24 - Wool Fiberglass Insulation Manufacturing Plant Attributes
OP-UA25 - Synthetic Fiber Production Attributes
OP-UA26 - Electroplating and Anodizing Unit Attributes
OP-UA27 - Nitric Acid Manufacturing Attributes
OP-UA28 - Polymer Manufacturing Attributes
OP-UA29 - Glass Manufacturing Unit Attributes
OP-UA30 - Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mill Attributes
OP-UA31 - Lead Smelting Attributes
OP-UA32 - Copper and Zinc Smelting/Brass and Bronze Production Attributes
OP-UA33 - Metallic Mineral Processing Plant Attributes
OP-UA34 - Pharmaceutical Manufacturing
OP-UA35 - Incinerator Attributes
OP-UA36 - Steel Plant Unit Attributes
OP-UA37 - Basic Oxygen Process Furnace Unit Attributes
OP-UA38 - Lead-Acid Battery Manufacturing Plant Attributes
OP-UA39 - Sterilization Source Attributes

OP-UA40 - Ferroalloy Production Facility Attributes
OP-UA41 - Dry Cleaning Facility Attributes
OP-UA42 - Phosphate Fertilizer Manufacturing Attributes
OP-UA43 - Sulfuric Acid Production Attributes
OP-UA44 - Municipal Solid Waste Landfill/Waste Disposal Site Attributes
OP-UA45 - Surface Impoundment Attributes
OP-UA46 - Epoxy Resins and Non-Nylon Polyamides Production Attributes
OP-UA47 - Ship Building and Ship Repair Unit Attributes
OP-UA48 - Air Oxidation Unit Process Attributes
OP-UA49 - Vacuum-Producing System Attributes
OP-UA50 - Fluid Catalytic Cracking Unit Catalyst Regenerator/Fuel Gas Combustion Device/Claus Sulfur Recovery Plant Attributes
OP-UA51 - Dryer/Kiln/Oven Attributes
OP-UA52 - Closed Vent Systems and Control Devices
OP-UA53 - Beryllium Processing Attributes
OP-UA54 - Mercury Chlor-Alkali Cell Attributes
OP-UA55 - Transfer System Attributes
OP-UA56 - Vinyl Chloride Process Attributes
OP-UA57 - Cleaning/Depainting Operation Attributes
OP-UA58 - Treatment Process Attributes
OP-UA59 - Coke By-Product Recovery Plant Attributes
OP-UA60 - Chemical Manufacturing Process Unit Attributes
OP-UA61 - Pulp, Paper, or Paperboard Producing Process Attributes
OP-UA62 - Glycol Dehydration Unit Attributes
OP-UA63 - Vegetable Oil Production Attributes